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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,744	09/25/2003	Shinichiro Tsunematsu	2003-1251A	4503
513	7590	04/20/2006	EXAMINER	
WENDEROTH, LIND & PONACK, L.L.P.			MORRISON, THOMAS A	
2033 K STREET N. W.			ART UNIT	
SUITE 800			PAPER NUMBER	
WASHINGTON, DC 20006-1021			3653	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/669,744	Applicant(s) TSUNEMATSU, SHINICHIRO	
	Examiner Thomas A. Morrison	Art Unit 3653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/02/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is unclear where the recited "plurality of paper sheets" are loaded. The sheets of paper are loaded in what element?

Claim 1 recites the limitation "the direction of transfer" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "said geared section" in line 17. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the side opposite" in line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the side on which" in line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the side on said groove" in line 20. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the radial direction" in line 21. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "said grooves" in line 24. There is insufficient antecedent basis for this limitation in the claim.

Claim 1 recites the limitation "the rotation" in line 25. There is insufficient antecedent basis for this limitation in the claim.

Claim 2 recites the limitation "the contents" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the periphery" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 5 recites the limitation "the outer edge" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the side of the periphery" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "the side of said engagement groove" in lines 9-10. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 6, it is also noted that this claim depends from claim 1. Claim 1 recites "a groove". Then, claim 6 recites three different grooves (an engagement groove and two different slide grooves). As such, claim 6 is confusing as to how many different grooves are claimed.

Claim 8 recites the limitation "the center" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 11, it is unclear where the recited "plurality of paper sheets" are loaded. The sheets of paper are loaded in what element?

Claim 11 recites the limitation "the direction of transfer" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "said geared section" in line 10. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the side opposite" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the side on which" in line 11. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the side of said groove" in line 13. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the radial direction" in line 14. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the rotation" in line 17. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 14, it is unclear where the recited "plurality of paper sheets" are loaded. The sheets of paper are loaded in what element?

Claim 14 recites the limitation "the direction of transfer" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "said geared section" in line 15. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the side opposite" in line 16. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the side on which" in line 16. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the side" in line 18. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "said grooves" in lines 18 and 28-29. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the radial direction" in line 19. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the rotation" in line 22. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the reverse direction" in lines 31-32. There is insufficient antecedent basis for this limitation in the claim.

Also, it is unclear what element the recited "slide pin" engages in line 34 of claim 14.

Claim 17 recites the limitation "the periphery" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 17 recites the limitation "the outer edge" in line 6. There is insufficient antecedent basis for this limitation in the claim.

The above indefiniteness problems are exemplary. Applicant should review the claims and make sure that proper antecedent basis and consistent language is provided throughout the claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 11 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S.

Patent No. 6,581,924 (Gaarder et al.).

Regarding claim 11, as best understood, Figs. 1 to 16E-3 disclose a discrete paper feeder comprising:

a separation roller (80) for separating a single sheet of paper from a plurality of paper sheets that are loaded;

a transfer roller (90) disposed in the direction of transfer of the sheet of paper by the separation roller (80) and driven to rotate faster than the separation roller (80) by a predetermined peripheral speed difference with respect to the separation roller (80) (see e.g., column 5, lines 66-67); and

a driving force control section (including spring 84 and the gears shown in Fig. 4) for transmitting driving force to the separation roller (80);

wherein the driving force control section (including spring 84 and the gears shown in Fig. 4) absorbs the peripheral speed difference between the separation roller

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(80) and the transfer roller (90) (see, e.g., column 8, lines 37-44) when the sheet of paper is bitten by both the separation roller (80) and the transfer roller (90), and the driving force control section (including spring 84 and the gears shown in Fig. 4) interrupts the transmission of driving force to the separation roller (80) for a predetermined period (see e.g., column 6, lines 5-15) when the sheet of paper leaves the separation roller (80).

Alternatively, claim 11 can be anticipated using different elements disclosed in the Gaader et al. patent, as outlined below.

Regarding claim 11, as best understood, Figs. 1 to 16E-3 disclose a discrete paper feeder comprising:

- a separation roller (90) for separating a single sheet of paper from a plurality of paper sheets that are loaded;

- a transfer roller (sheet moving roller in column 6, line 1) disposed in the direction of transfer of the sheet of paper by the separation roller (90) and driven to rotate faster than the separation roller (90) by a predetermined peripheral speed difference with respect to the separation roller (90) (see e.g., column 5, line 66 to column 6, line 3); and

- a driving force control section (including gears 98 and 294 in Fig. 14) for transmitting driving force to the separation roller (90);

- wherein the driving force control section (including gears 98 and 294 in Fig. 14) absorbs the peripheral speed difference between the separation roller (90) and the

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transfer roller (sheet moving roller in column 6, line 1) (see also column 6, lines 16-23 and lines 29-32) when the sheet of paper is bitten by both the separation roller (90) and the transfer roller (sheet moving roller in column 6, line 1), and the driving force control section (including gears 98 and 294 in Fig. 14) interrupts the transmission of driving force to the separation roller (90) for a predetermined period when the sheet of paper leaves the separation roller (90)(see e.g., column 6, lines 29-32). With regard to the predetermined time period limitation, such time period can be whatever time is required for the clutch gear 294 to engage the separation roller gear 86 to start driving the separating roller (90) after a sheet has been pulled out from the separation roller (90) by the transfer roller (sheet moving roller in column 6, line 1).

Allowable Subject Matter

3. Claims 1-10 and 14-17 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. Claims 12-13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathy Matecki can be reached on (571) 272-6951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

04/16/2006

Kathy Matecki
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